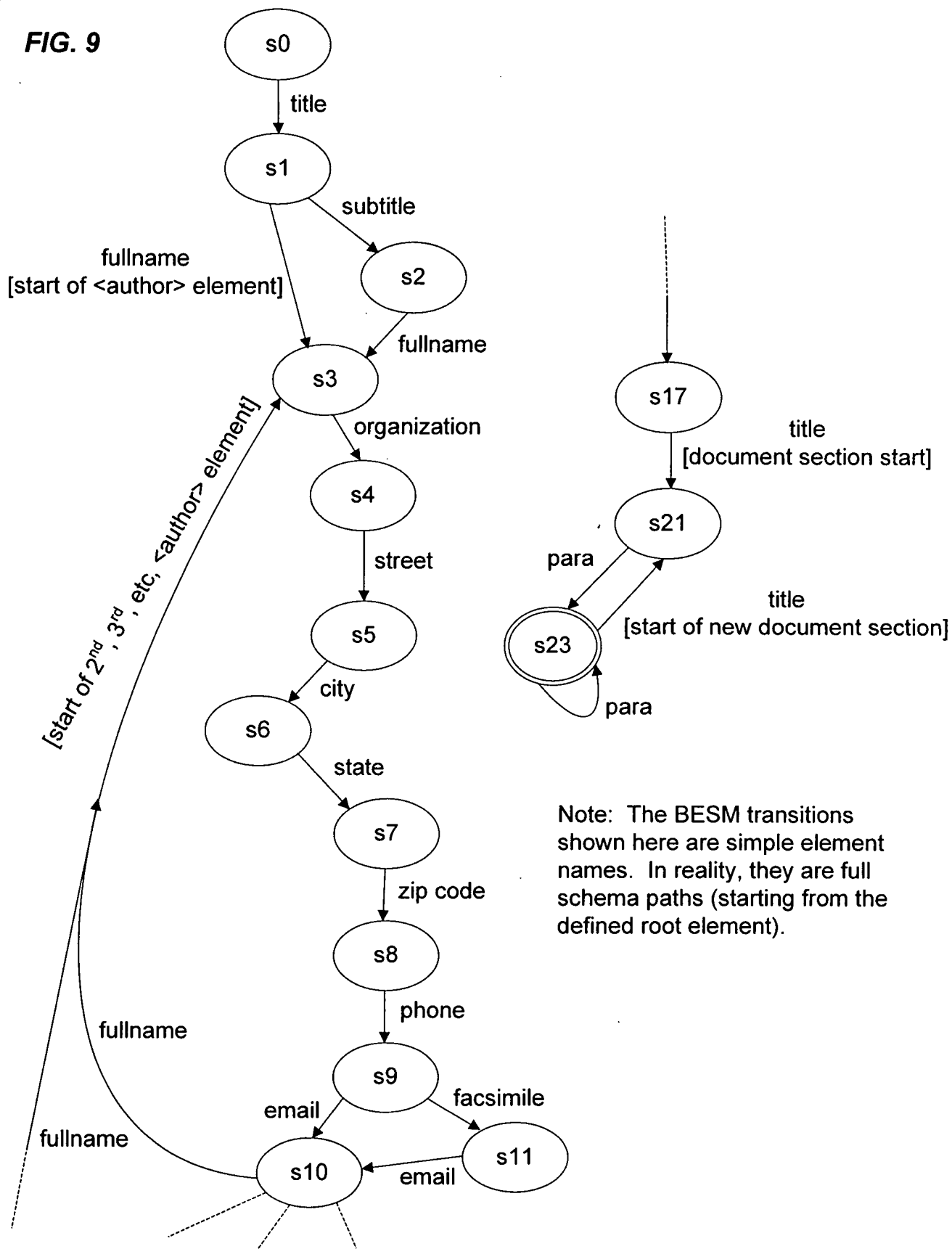


REPLACEMENT SHEET

FIG. 9



REPLACEMENT SHEET

Marked Up: <u>/book/bookinfo/bookbiblio/authorgroup/author/address/address/email</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 20 Expected elements: <u>uri</u> , <u>para</u> , <u>fullname</u> , <u>pubdate</u> , <u>para</u> >> Matched Elements: <u>uri</u>
Marked Up: <u>/book/bookinfo/bookbiblio/authorgroup/author/adress/uri</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 14 Expected elements: <u>para</u> , <u>fullname</u> , <u>pubdate</u> , <u>para</u> >> Matched Elements: (None)
Skipped to Next Paragraph
Conversion State: <u>[document position]</u> ; cumulative rating: 14 Expected elements: <u>para</u> , <u>fullname</u> , <u>pubdate</u> , <u>para</u> >> Matched Elements: <u>fullname</u>
Marked Up: <u>/book/bookinfo/bookbiblio/authorgroup/author[2]/fullname</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 9 Expected elements: <u>organization</u> >> Matched Elements: <u>organization</u>
Marked Up: <u>/book/bookinfo/bookbiblio/authorgroup/author[2]/organization</u> .
Marked Up: <u>/content/document/section[6]/reference[23]/titlegroup/title</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 453 Expected elements: <u>volume</u> , <u>title</u> >> Matched Elements: <u>volume</u>
Marked Up: <u>/content/document/section[6]/reference[23]/volume</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 452 Expected elements: <u>page</u> >> Matched Elements: <u>page</u>
Marked Up: <u>/content/document/section[6]/reference[23]/page</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 453 Expected elements: <u>number</u> , <u>name</u> , <u>heading</u> >> Matched Elements: (None)
Skipped Element: <u>content/document/section/heading</u>
Conversion State: <u>[document position]</u> ; cumulative rating: 442 Expected elements: <u>number</u> , <u>name</u> , <u>p</u> , <u>heading</u> >> Matched Elements: <u>p</u>
Marked Up: <u>/content/document/section[6]/p</u>
Conversion State: <u>[document position]</u> ; cumulative rating 437 Expected elements: <u>p</u> , <u>heading</u> , <u>heading</u> >> Matched Elements: <u>p</u>

FIG. 14: Conversion/markup Report samples

Page 1 Sec 1 1/10 At 5.4" Ln 26 Col 27

Article.doc

File Edit View Insert Format Tools Table Window Help

Convert Document View Conversion Report Word Studio Setup

100%

Font

10 B / U

Help

Word Studio

Schema Browser

Header/namegroup/name

- externalink
- file
- externalink
- forenames
- header
- documentinfo
- all forenamesgroup
- all titlegroup
- namegroup
- name (+)
- address (+)
- summary

Element Conversion Definition

- Fractional Paragraph
- Leading Pattern
- Text Pattern
- Trailing Pattern
- Text Pattern
- Text Formatting
- Style Name

Conversion Definition Properties

Misc

midparaStart allowed

Priority 5

Structures of two cell wall-associated polysaccharides of a *Streptococcus mitis* biovar 1 strain

A unique teichoic acid-like polysaccharide and the group O antigen which is a C-polysaccharide in common with pneumococci Niklas Bengström¹, Per-Erik Jansson¹, Mogens Kilian² and Uffe B. Skov Sørensen²
[http://schisams.microssi.com/cellwall/2003/wcmt0137/Clinical Research Centre, Analytical Unit, Karolinska Institute, Huddinge Hospital, Novum, Huddinge, Sweden 2Department, Medical Microbiology and Immunology, University of Helsinki, Denmark](http://schisams.microssi.com/cellwall/2003/wcmt0137/Clinical%20Research%20Centre,%20Analytical%20Unit,%20Karolinska%20Institute,%20Huddinge%20Hospital,%20Novum,%20Huddinge,%20Sweden%20Department,%20Medical%20Microbiology%20and%20Immunology,%20University%20of%20Helsinki,%20Denmark)

The cell wall of *Streptococcus mitis* biovar 1 strain SK137 contains the C-polysaccharide known as the common antigen of a closely related species *Streptococcus pneumoniae*, and a teichoic acid-like polysaccharide with a unique structure. The two polysaccharides are different entities and should be partially separated by gel chromatography. The structures of the two polysaccharides were determined by chemical methods and by NMR spectroscopy. The teichoic acid-like polymer has a heptasaccharide phosphate repeating unit with the following structure:

The structure neither contains ribitol nor glycerol phosphate as classical teichoic acids do, thus we have used the expression teichoic acid-like for this polysaccharide. The following structure of the C-polysaccharide repeating unit was established.

where AAT is 2-acetamide-4-amino-2,4,6-trideoxy-D-galactose. It has a carbohydrate backbone identical to that of one of the two structures of C-polysaccharide previously identified in *S. pneumoniae*. C-polysaccharide of *S. mitis* is characterized by the presence, in each repeating unit, of two residues of phosphocholine and both galactosamine residues in the N-acetylated form. Immunochemical analysis showed that C-polysaccharide constitutes the Lancefield group O antigen. Studies using mAbs directed against the backbone and against the phosphocholine moiety of the C-polysaccharide revealed several different patterns of these epitopes among 95 *S. mitis* and *Streptococcus oralis* strains tested and the exclusive presence of the group O antigen in the majority of *S. mitis* biovar 1 strains. **Keywords:**

Surface polysaccharides are essential components of most bacteria as they constitute a barrier between the bacterial cells and the surrounding environment. The serological identification of many bacterial species is based on the detection of surface polysaccharide antigens by diagnostic antisera. A classical example is the Lancefield